

more could be persuaded, despite my continued handling, for a considerable time, and this unfortunately led to the bursting of the female. I had hoped on this occasion to allow a male to have access to the female to see just how pairing can take place in such peculiar circumstances, but I will now have to restrain my curiosity for another year and another female.

Something else about this species I have never understood, is where the males are when not assembling, as I had never previously seen them apart from the above-mentioned examples, in spite of a number of visits to this, and other *villosella* localities over the years at all times of the day and night. Dare I suggest that perhaps they spend most of their time wandering around female cases trying to find a way of pairing?

Another curious thing, considering the sedentary nature of the female, is how the species appears suddenly to move perhaps a mile from the last known place where cases were seen, in the space of one season. One wonders if perhaps newly hatched larvae spin silk and allow themselves to become wind-borne as do young spiders. A strong wind at the correct time of year causing the colony to take a long leap away from its usual breeding ground.

21.x.1969.

## Isle of Canna Report for 1969

By J. L. CAMPBELL

On the 18th of June 1969 thirteen months of almost continuous good weather, unprecedented in the Hebrides, came to an end. Thereafter there was a good deal of rain and wind, interspersed with a few fine spells in which lepidoptera, built up in numbers during the fine summer of 1968 and spring of 1969, were more numerous than at any time since the famous summer of 1947. There were also several prolonged spells of fog in July, which did not interfere with catches in the moth trap, though they were useless for anything else. It was not until early September that the island streams recovered their normal flow of water.

All species of butterflies were markedly more numerous, particularly *Pieris napi* L., of which hundreds could be seen flying over arable ground, in gardens and around plantations on any fine day during the emergence of the second brood. *Pieris brassicae* L. was also very common, its larvae destroying our cabbages. *Aglais urticae* L. and *Argynnis aglaia* L. were again in evidence at the east end of the island, where a batch of about 200 larvae of the former were found on a favoured patch of nettles, and where *Brenthis selene* Schiff. was seen for the first time—hitherto it had been confined to a small area on the south-facing cliffs of Sanday.

A single specimen of *Pararge aegeria* L. was seen on the 1st of August in the identical spot where one appeared in 1968. But searching of the plantations failed to discover any others. This butterfly was also observed by Dr. H. MacLean on the Island of Eigg, where a colony may very well exist, in addition to that on the island of Rum, as there are large and well-established woods on Eigg.

Of the migrants, *Vanessa atalanta* L. was not observed until 15th July, and thereafter was noted occasionally until August 8th. On September 8th full-grown larvae were found on the same sheltered batch of nettles

on which the *urticae* larvae already mentioned had been found two months earlier. These pupated about a week later. *Vanessa cardui* L. was only seen on August 9th and 13th and no larvae were found. *Plusia gamma* L. was not observed until July 25th. Thereafter it turned up in ones and twos in the trap fairly regularly. An unusual feature was that pale forms, usually associated with the early summer immigration, kept turning up until the beginning of September. One *Nomophila noctuella* Schiff. was observed on July 15th and two were taken in the trap the next night.

On September 19th a rather worn *Herse convolvuli* was taken in the trap, a year and a week after the last one. Thereafter the weather changed into winter almost instantaneously. There was a half gale on September 20th and a full storm on the 21st and again on the 28th, and in between a week of wind and rain except for the 27th which was a 'pet day.' The completeness of the change can be demonstrated by the fact that on the morning of September 19th there were 266 moths, of 27 species, in the trap; on that of the 28th, when the trap had to be brought in at 12.15 a.m. because of the return of rain and wind, there were 5 moths of four species.

The season as a whole produced more moths in the trap than ever before, 12,272 moths on 82 nights, up to October 22nd. As usual, a number of common species provided a substantial part of the catch. *Triphaena pronuba* L., 2,175; *Cerapteryx graminis* L., 1,274; *Xylophasia monoglypha* Hufn., 1,224; *Apamea secalis* L. 617; *Triphaena ianthina* Schiff., 523, together provided 5,813 or nearly half the total. Others were: *Orthosia stabilis* Schiff., 364; *Diataraxia oleracea* L., 292; *Orthosia gothica* L., 287; *Orthosia incerta* Hufn., 255; *Agrotis exclamationis* L., 242; *Hydraecia micacea* Esp., 224; *Plusia chrysitis* L., 196; *Dysstroma citrata* L., 188; *Hada nana* Hufn. (*dentina* Esp.), 183; including some fine dark forms; *Luperina testacea* Schiff., 157; *Cerastis rubricosa* Schiff., 148; *Amathes xanthographa* Schiff., 146; *Omphaloscelis lunosa* Haw., 145; *Dysstroma truncata* Hufn., 135.

New species continue to turn up here, and this season *Harpyia furcula* Clerck, *Trichiura crataegi* L., *Leucania lithargyria* Esp., *Nothopteryx polycommata* Schiff. and *Lomaspilis marginata* L. were taken for the first time.

The dreadful weather at the end of September and beginning of October appeared to have killed the season, and certainly must have done much damage to the autumnal species as well as to the locally bred *V. atalanta* which were (in captivity and presumably outside) emerging at that time. But in the middle of October the warm weather which had been affecting most of the rest of the country reached us at last and brought some surprising effects with it.

Saturday, October 18th was fine and warm and numerous specimens of *P. gamma* were observed in various places in the day time, and at night on veronica blossoms. On October 19th there were 27 *gamma* in the trap and 3 *noctuella*, as well as ten other kinds of macros. On the 20th there were 37 *gamma*, 40 *noctuella*, 13 *Udea martialis* Hübn., and a male and female *Nycterosea obstipata* Fabr. in the trap. In 1966, the great *gamma* year here, the largest number taken in a single night was only 33. on 18th September; *noctuella* has never turned up in such

numbers before, and *N. obstipata* has only been taken once before here, on 8th October 1966. On the 21st October the migration had moved on; there were only 8 *gamma* and 2 *martialis*; on the 22nd, 11 *gamma*, 3 *noctuella* and one *martialis*. All the *gamma* were very fresh. As I then had to leave Canna for a month, further investigations were impossible, but such numbers indicate a probable large influx in the country generally.

## Some Butterflies in the Massif Central, 1969

By M. R. SHAW

Although two papers dealing with the butterflies of the Massif Central have recently appeared in the Entomologist's Record, it seems appropriate to supplement these with the rather different experiences that I have had in this exceptionally late summer. By and large I covered the same ground as did Mr. R. F. Bretherton in 1966, and at roughly the same time of year.

Accompanied by my parents, who are fortunately resourceful enough to appreciate the remote and beautiful countryside that goes with collecting butterflies without themselves being collectors, I left England on June 25th, making straight for the deciduous woodland of the Loire valley. Here I hoped to find *Araschnia levana* L., and eventually I found a nest of young larvae together with some more nomadic final instar larvae near the Forêt de Loches, which produced a fine series of f. *prorsa* L. with one of the females approaching f. *porima* Ochs. I was also pleased to take *Mellicta athalia athalia* Rott. and some *Glaucopsyche alexis* Poda. An unexpected capture was *Brenthis ino* Rott., seen in one place only and flying very much faster than I have noted in previous experiences in the Alpes-Maritimes and the Basses-Alpes. I spent a lot of time looking on sallow for the early stages of *Apatura* species without success, and neither could I find *Hemearis lucina* L. on primrose. I was also hoping to take *Carterocephalus palaemon* Pall., but all I could find was one worn male. A few *Limenitis camilla* L., one worn *L. anonyma* Lewin and a pair of *Maculinea arion* L. completed the interesting species I found in the area.

We then pushed on to Chambon in the Monts-Dore, arriving late in the afternoon of June 28th. Almost immediately I found a colony of *Parnassius mnemosyne* L. in the woods stretching above the village towards the Col de la Croix Morand. The males were very fresh, with the females only just starting to emerge, and I easily collected a short series by looking among the grass heads for specimens at rest with their wings extended as this habit makes them very conspicuous. The next day we went up to the Vallée de Chaudefour where I took several *Lycæna helle* Schiff. among *Polygonum bistorta* on very wet ground; the condition of both sexes ranged from very fresh to incredibly tatty. The females seemed easiest to find by watching the *Polygonum* heads but the males apparently prefer to rest on green foliage. Here I also found several very fresh *C. palaemon*, the imagines feeding exclusively on *Geranium*. A short search among the same plant soon produced two only of *Eumedonia chiron* Rott., both very fresh. I have always found